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EXAMINER

GAY, JENNIFER HAWKINS

ART UNIT PAPER NUMBER

3672

DATE MAILED: 11/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/044,639

Applicant(s)

AKERLUND, TOR JAN

Examiner

Jennifer H Gay

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24,35-55,57-62 and 64-69 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24,35-55,57-62 and 64-69 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-24, 35-55, 57-62, and 64-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kelly (US 3,881,375) in view of Swoboda, Jr. et al. (US 3,840,128).

Regarding claim 1: Kelly discloses an apparatus for positioning a wellbore tong proximate a tubular at a well center. The apparatus includes the following features:

- A boom **24** with the tong **T** attached to the end thereof.
- A mounting assembly **10** coupled to an opposite end of the boom.

Kelly discloses all of the limitations of the above claims except for the booming being cantilevered and extendable via an actuating member.

Swoboda, Jr. et al. discloses an apparatus for moving a wellbore tubular gripping member similar to the apparatus of Kelly. Swoboda, Jr. et al. further teaches a cantilevered and extendable boom **36** and an actuating member (5:35-40) for extending and retracting the extendable boom relative to a well center.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified Kelly to include the extendable boom of Swoboda, Jr. et al. in order to have been able to move a tubular member in any desired direction (2:6-10). One would have been motivated to make such a combination because a tubular moving and coupling system that was not limited to movement in a signal horizontal plane and only limited movement about a vertical axis would have been provided (1:56-68). Such a system would have allowed movement and alignment of the tubulars of various sizes and shapes used in a well drilling environment.

Regarding claim 2: The boom of Swoboda, Jr. et al. is telescopic (Figure 2).

Regarding claims 3 and 18: The boom of Kelly is pivotable about a vertical axis (2:55-60) as is the boom of Swoboda, Jr. et al.

Regarding claims 4 and 19: The boom of Swoboda, Jr. et al. is pivotable about a horizontal axis via a pivot point 118.

Regarding claims 5 and 15: The boom of Swoboda, Jr. et al. includes an outer barrel 38 and an inner barrel 42.

Regarding claims 6 and 16: The boom of Swoboda, Jr. et al. includes an intermediate barrel 40.

Regarding claims 7 and 17: As shown in Figure 2 of Swoboda, Jr. et al., a portion of the inner barrel is slidably mounted in the intermediate barrel and a portion of the intermediate barrel is slidably mounted in the outer barrel.

Regarding claims 8 and 12: The mounting assembly of Kelly includes a base 14 and a carriage 10 that is pivotally attached to the base via bearings 18.

Swoboda, Jr. et al. teaches a similar mounting assembly that includes a base 82 and a carriage 70 that is pivotally attached to the base. As shown in Figure 2, a portion of the outer barrel is disposed in the carriage.

Regarding claims 9 and 24: The gripping assembly of Swoboda, Jr. et al. is movably attached to the inner barrel via pivot points 72, 78.

Regarding claims 10 and 13: As shown in Figures 11 and 12 of Swoboda, Jr. et al., the outer barrel is secured to the carriage via a clamping assembly.

Regarding claim 11: As stated in column 8, lines 37-64 of Swoboda, Jr. et al., the outer barrel is extendable relative to the carriage thus the outer barrel would be extendable relative to the clamping assembly.

Regarding claim 14: Though not specifically disclosed, the clamping assembly of Swoboda, Jr. et al. would inherently be releasable connected to the carriage in order to have been able to disassemble the apparatus for maintenance.

Regarding claim 20: The apparatus of Swoboda, Jr. et al. includes a motor 90 to adjust the position of the boom relative to the mounting assembly.

Regarding claim 21: The actuating member of Swoboda, Jr. et al. includes a piston and cylinder assembly (5:35-40, Figure 11).

Regarding claim 22: As seen in Figure 11 of Swoboda, Jr. et al., the piston and cylinder assembly is at least partially located on the boom.

Regarding claim 23: The piston and cylinder assembly of Swoboda, Jr. et al. is used to move the boom horizontally.

Regarding claim 35: Kelly discloses an apparatus for positioning a wellbore tong for making up or breaking out tubulars. The apparatus includes the following features:

- A boom **24** with the tong **T** attached to the end thereof.
- A mounting assembly **10** coupled to an opposite end of the boom.

Kelly discloses all of the limitations of the above claims except for the booming being cantilevered and extendable via a motive assembly.

Swoboda, Jr. et al. discloses an apparatus for moving a wellbore tubular gripping member similar to the apparatus of Kelly. Swoboda, Jr. et al. further teaches a cantilevered and extendable boom **36** and a motive assembly (5:35-40) for extending and retracting the extendable boom.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified Kelly to include the extendable boom of Swoboda, Jr. et al. in order to have been able to move a tubular member in any desired direction (2:6-10). One would have been motivated to make such a combination because a tubular moving and coupling system that was not limited to movement in a signal horizontal plane and only limited movement about a vertical axis would have been provided (1:56-68). Such a system would have allowed movement and alignment of the tubulars of various sizes and shapes used in a well drilling environment.

Regarding claim 36: The gripping assembly of Swoboda, Jr. et al. is movably attached to the inner barrel via pivot points **72, 78**.

Regarding claim 37: The motive assembly of Swoboda, Jr. et al. includes a piston and cylinder assembly (5:35-40, Figure 11).

Regarding claim 38: Kelly discloses an apparatus for positioning a wellbore tong proximate a well center. The apparatus includes the following features:

- A boom **24** with the tong **T** attached to the end thereof where the tong is used to make up or break out tubulars. As seen in Figure 1, the

center of mass of the gripping assembly is aligned with the central axis of the boom.

- A mounting assembly 10 coupled to an opposite end of the boom.

Kelly discloses all of the limitations of the above claims except for the booming being cantilevered and extendable via an actuating member.

Swoboda, Jr. et al. discloses an apparatus for moving a wellbore tubular gripping member similar to the apparatus of Kelly. Swoboda, Jr. et al. further teaches a cantilevered and extendable boom 36 and an actuating member (5:35-40) for extending and retracting the extendable boom.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified Kelly to include the extendable boom of Swoboda, Jr. et al. in order to have been able to move a tubular member in any desired direction (2:6-10). One would have been motivated to make such a combination because a tubular moving and coupling system that was not limited to movement in a signal horizontal plane and only limited movement about a vertical axis would have been provided (1:56-68). Such a system would have allowed movement and alignment of the tubulars of various sizes and shapes used in a well drilling environment.

Regarding claim 39: The boom of Swoboda, Jr. et al. is telescopic (Figure 2).

Regarding claim 40: The boom of Kelly is pivotable about a vertical axis (2:55-60) as is the boom of Swoboda, Jr. et al. (8:7-9).

Regarding claim 41: The boom of Swoboda, Jr. et al. is pivotable about a horizontal axis via a pivot point 118.

Regarding claim 42: The boom of Swoboda, Jr. et al. includes an outer barrel 38 and an inner barrel 42.

Regarding claim 43: The boom of Swoboda, Jr. et al. includes an intermediate barrel 40.

Regarding claim 44: The mounting assembly of Kelly includes a base 14 and a carriage 10 that is pivotally attached to the base via bearings 18.

Swoboda, Jr. et al. teaches a similar mounting assembly that includes a base **82** and a carriage **70** that is pivotally attached to the base. As shown in Figure 2, a portion of the outer barrel is disposed in the carriage.

Regarding claim 45: As shown in Figures 11 and 12 of Swoboda, Jr. et al., the outer barrel is secured to the carriage via a clamping assembly.

Regarding claim 46: Though not specifically disclosed, the clamping assembly of Swoboda, Jr. et al. would inherently be releasable connected to the carriage in order to have been able to disassemble the apparatus for maintenance.

Regarding claim 47: The apparatus of Swoboda, Jr. et al. includes a motor **90** to adjust the position of the boom relative to the mounting assembly.

Regarding claim 48: The actuating member of Swoboda, Jr. et al. includes a piston and cylinder assembly (5:35-40, Figure 11). As seen in Figure 11, the piston and cylinder assembly is at least partially located on the boom.

Regarding claim 49: The piston and cylinder assembly of Swoboda, Jr. et al. is used to move the boom horizontally.

Regarding claim 50: Kelly discloses an apparatus for positioning a wellbore tong for making up or breaking out tubulars. The apparatus includes the following features:

- A boom **24** with the tong **T** attached to the end thereof.
- A mounting assembly **10** coupled to an opposite end of the boom.

Kelly discloses all of the limitations of the above claims except for the booming being cantilevered and extendable via a motive assembly.

Swoboda, Jr. et al. discloses an apparatus for moving a wellbore tubular gripping member similar to the apparatus of Kelly. Swoboda, Jr. et al. further teaches a cantilevered and extendable boom **36** and a motive assembly (5:35-40) for extending and retracting the extendable boom.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified Kelly to include the extendable boom of Swoboda, Jr. et al. in order to have been able to move a tubular member in any desired direction (2:6-10). One would have been motivated to make such a combination because a tubular moving and coupling system that was not limited to movement in a signal

horizontal plane and only limited movement about a vertical axis would have been provided (1:56-68). Such a system would have allowed movement and alignment of the tubulars of various sizes and shapes used in a well drilling environment.

Regarding claim 51: The gripping assembly of Swoboda, Jr. et al. is movably attached to the inner barrel via pivot points **72, 78**.

Regarding claim 52: The motive assembly of Swoboda, Jr. et al. includes a piston and cylinder assembly (5:35-40, Figure 11).

Regarding claims 53 and 55: The boom of Kelly is pivotable about a vertical axis (2:55-60) as is the boom of Swoboda, Jr. et al. The boom of Swoboda, Jr. et al. is also movable in a horizontal plane via a pivot point **118**.

Regarding claim 54: The boom of Swoboda, Jr. et al. is slidable along the mounting assembly between a first and second position.

Regarding claim 57: The boom of Swoboda, Jr. et al. is telescopic.

Regarding claim 58: Kelly discloses a method for positioning a wellbore tong got making up or breaking out tubulars. The method involves the following steps:

- Providing a boom **24** with the tong **T** attached to the end thereof.
- Coupling a second end of the boom to a mounting assembly **10** coupled to an opposite end of the boom.
- Moving the tong between a first and second position via piston cylinder **34**.
- Engaging the tubular with the tong and either connecting or disconnecting the tubulars.

Kelly discloses all of the limitations of the above claims except for the booming being cantilevered and extendable via an actuating member.

Swoboda, Jr. et al. discloses an apparatus for moving a wellbore tubular gripping member similar to the apparatus of Kelly. Swoboda, Jr. et al. further teaches a cantilevered and extendable boom **36** and an actuating member (5:35-40) for extending and retracting the extendable boom.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified Kelly to include the extendable boom of

Swoboda, Jr. et al. in order to have been able to move a tubular member in any desired direction (2:6-10). One would have been motivated to make such a combination because a tubular moving and coupling system that was not limited to movement in a signal horizontal plane and only limited movement about a vertical axis would have been provided (1:56-68). Such a system would have allowed movement and alignment of the tubulars of various sizes and shapes used in a well drilling environment.

Regarding claim 59: The boom of Swoboda, Jr. et al. is telescopic.

Regarding claims 60 and 61: As seen in Figure 1, the center of mass of the gripping assembly is aligned with the central axis of the boom.

Regarding claim 62: Kelly discloses a tong assembly for making up or breaking out tubulars. The assembly includes the following features:

- A boom **24** with the tong **T** attached to the end thereof. As seen in Figure 1, the center of mass of the gripping assembly is aligned with the central axis of the boom.
- A mounting assembly **10** coupled to an opposite end of the boom.

Kelly discloses all of the limitations of the above claims except for the booming being cantilevered and extendable via an actuating member.

Swoboda, Jr. et al. discloses an apparatus for moving a wellbore tubular gripping member similar to that of Kelly. Swoboda, Jr. et al. further teaches as cantilevered and extendable boom **36** and an actuating member (5:35-40) for extending and retracting the extendable boom.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified Kelly to include the extendable boom of Swoboda, Jr. et al. in order to have been able to move a tubular member in any desired direction (2:6-10). One would have been motivated to make such a combination because a tubular moving and coupling system that was not limited to movement in a signal horizontal plane and only limited movement about a vertical axis would have been provided (1:56-68). Such a system would have allowed movement and alignment of the tubulars of various sizes and shapes used in a well drilling environment.

Regarding claim 64: Kelly discloses an apparatus for positioning a wellbore tong. The apparatus includes the following features:

- A boom 24 with the tong T attached to the end thereof.
- A mounting assembly 10 coupled to an opposite end of the boom.

Kelly discloses all of the limitations of the above claims except for the booming being cantilevered and extendable via an actuating member.

Swoboda, Jr. et al. discloses an apparatus for moving a wellbore tubular gripping member similar to the apparatus of Kelly. Swoboda, Jr. et al. further teaches a cantilevered and extendable boom 36 and an actuating member (5:35-40) for extending and retracting the extendable boom.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified Kelly to include the extendable boom of Swoboda, Jr. et al. in order to have been able to move a tubular member in any desired direction (2:6-10). One would have been motivated to make such a combination because a tubular moving and coupling system that was not limited to movement in a signal horizontal plane and only limited movement about a vertical axis would have been provided (1:56-68). Such a system would have allowed movement and alignment of the tubulars of various sizes and shapes used in a well drilling environment.

Regarding claim 65: The apparatus of both Kelly and Swoboda, Jr. et al. is located on a drilling rig.

Regarding claim 66: The tong of Kelly is used to rotate one tubular relative to another tubular.

Regarding claim 67: Kelly discloses a method for positioning a wellbore tong. The method involves the following steps:

- Providing a boom 24 with the tong T attached to the end thereof.
- Engaging a first and second tubular with the tong to connect the first and second tubulars.

Kelly discloses all of the limitations of the above claims except for the booming being cantilevered and extendable via an actuating member.

Swoboda, Jr. et al. discloses an apparatus for moving a wellbore tubular gripping member similar to the apparatus of Kelly. Swoboda, Jr. et al. further teaches a cantilevered and extendable boom 36 and an actuating member (5:35-40) for extending and retracting the extendable boom.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified Kelly to include the extendable boom of Swoboda, Jr. et al. in order to have been able to move a tubular member in any desired direction (2:6-10). One would have been motivated to make such a combination because a tubular moving and coupling system that was not limited to movement in a signal horizontal plane and only limited movement about a vertical axis would have been provided (1:56-68). Such a system would have allowed movement and alignment of the tubulars of various sizes and shapes used in a well drilling environment.

Regarding claim 68: The tong of Kelly is used to rotate one tubular relative to another tubular.

Regarding claim 69: The extendable boom of Swoboda, Jr. et al. is variable in length.

Response to Arguments

3. Based on applicant's amendment, the rejection of the claims under 35 USC 102(b) as being anticipated by Honea has been withdrawn.

4. Applicant's arguments filed 01 September 2004 have been fully considered but they are not persuasive.

In response to applicant's argument that Swoboda does not teach making up or breaking out a tubular joint at the well center, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). The examiner notes that Swoboda was used

merely to teach an extendable boom and that Kelly teaches the feature of making up or breaking out tubular joints.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation to combine Kelly and Swoboda can be found in the desirability to be able to move a tong to any desired position on a drill rig thus facilitating easy connection/disconnection and movement of tubulars around the rig. This point of motivation is found in column 1, lines 56-68 of Swoboda.

Applicant further argued that the previously cited motivation for combining Kelly and Swoboda, i.e. to prevent swaying of tubulars as they were moved around the ring, was not relevant as the apparatus of Kelly was not used to move tubulars thus tubular swaying would not occur with the apparatus of Kelly. The examiner agrees with this argument but notes that alternate motivation from Swoboda has been provided.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


The remaining references made of record disclose various devices for moving tongs on a drilling or workover platform and/or various extendable booms.


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer H Gay whose telephone number is (703) 308-2881. The examiner can normally be reached on Monday-Thursday, 6:30-4:00 and Friday, 6:30-1:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (703) 308-2151. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David Bagnell
Supervisory Patent Examiner
Art Unit 3672

JHG 
November 1, 2004